

USPTO Customer No. 25280
Serial No: 10/679,217

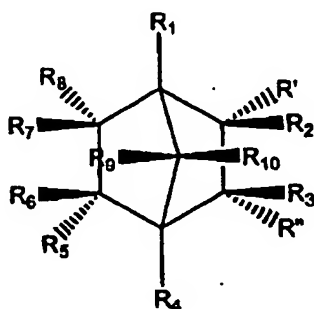
Inventor(s): Mannion et al
Case No: 5646

IN THE CLAIM

1. (Currently Amended) An additive formulation comprising: ~~an anti-caking agent and a small size nucleating compound, said composition further comprising~~

(a) at least one nucleating compound conforming to the structure of Formula (I)

(I)



wherein R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, and R₁₀ are independently selected from the group consisting of hydrogen, C₁-C₉ alkyl, hydroxy, C₁-C₉ alkoxy, C₁-C₉ alkyleneoxy, amine, and C₁-C₉ alkylamine, halogen, phenyl, alkylphenyl, and geminal or vicinal carbocyclic having up to nine carbon atoms;

wherein R' and R'' are the same or different and are individually selected from the group consisting of hydrogen, C₁-C₃₀ alkyl, hydroxy, amine, polyamine, polyoxyamine, C₁-C₃₀ alkylamine, phenyl, halogen, C₁-C₃₀ alkoxy, C₁-C₃₀ polyoxyalkyl, and esters; and

wherein said nucleating compound is provided in the form of particles, said particles having a D₉₅ size range of less than or equal to about 94 micrometers at a mean volume diameter (MVD) of about 16; and

USPTO Customer No. 25280

Serial No: 10/679,217

Inventor(s): Mannion et al

Case No: 5646

selected from the
 (b) an anticaking agent, said ~~wherein said~~ anti-caking agent comprising es one or more
~~of a~~ group consisting of: silica gel; talc, dihydrotalcite; and metal carboxylates acids;
 and

wherein said anticaking agent is provided in a weight ratio of anticaking agent to
 nucleating compound of from about 10:90 to about 30:70.

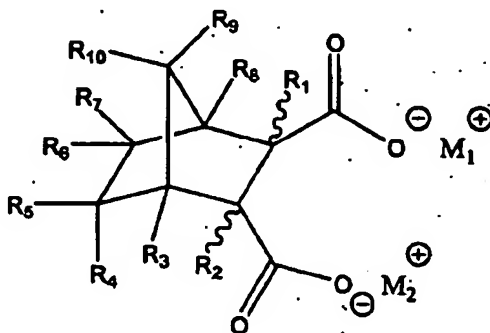
2. ⁸ (Currently Amended) An additive formulation, wherein said additive formulation
 comprises in part;

(a) -an anti-caking agent and

(b) a ~~small size~~ nucleating compound, wherein

said ~~small size~~ nucleating compound conforms ing to the structure of:

Formula (II)



wherein M₁ and M₂ are the same or different and are independently selected
 from the group consisting of metal ~~or~~ organic cations; and

USPTO Customer No. 25280
Serial No: 10/679,217

Inventor(s): Mannion et al
Case No: 5646

R₁, R₂, R₃, R₄, R₅, R₆, R₇, R₈, R₉, and R₁₀ are independently selected from the group consisting of hydrogen, C₁-C₉ alkyl, hydroxy, C₁-C₉ alkoxy, C₁-C₉ alkyleneoxy, amine, and C₁-C₉ alkylamine, halogen, phenyl, alkylphenyl, and C₁-C₉ carbocyclic wherein said metal cations are selected from the group consisting of calcium, strontium, barium, magnesium, aluminum, silver, sodium, lithium, rubidium, and potassium.

wherein said nucleating compound is provided in the form of particles, said particles having a D95 size range of less than or equal to about 94 micrometers at a mean volume diameter (MVD) of about 16; and

wherein said anti-caking agent comprises one or more ^{selected from the} ~~of a~~ group consisting of: silica gel; talc, dihydrotalcite; and metal carboxylates ~~acids~~; and

wherein said anticaking agent is provided in a weight ratio of anticaking agent to nucleating compound of from about 10:90 to about 30:70.

3. (Cancelled)

4. ² (Currently Amended) The additive formulation of Claim ¹ ~~2~~ 3 wherein said metal cation is calcium.

5. ³ (Currently Amended) The additive formulation of Claim ¹ ~~3~~ 4 wherein said metal cation comprises sodium.

USPTO Customer No. 25280
Serial No: 10/679,217

Inventor(s): Mannion et al
Case No: 5646

6. (Cancelled).
7. (Cancelled).
8. (Cancelled).
9. (Cancelled).
10. (Cancelled).

AK
04-07-2005
~~11.~~ ⁹ (Previously Amended) The ^{additive} formulation of Claim 2 wherein said anticaking agent comprises a silica gel.

~~12.~~ ⁷ (Currently Amended) A thermoplastic article comprising the additive formulation of Claim 1, said article further comprising at least one polyolefin.

~~13.~~ ¹² (Currently Amended) A thermoplastic article comprising the additive formulation of Claim ~~2~~ ⁸, said article further comprising and at least one polyolefin.

14. (Cancelled).

15. (Cancelled).

M
04-07-2005
~~16.~~ ⁴ (Previously Amended) The additive formulation of claim 1 wherein said ~~small~~ nucleating compound comprises disodium bicyclo [2.2.1] heptane-2,3-dicarboxylate.

~~17.~~ ¹⁰ (Previously Amended) The additive formulation of claim ~~11~~ ⁹ wherein said ~~small~~ ~~size~~ nucleating compound comprises disodium bicyclo [2.2.1] heptane-2,3-dicarboxylate.

USPTO Customer No. 25280

Serial No: 10/679,217

18. (Cancelled)

Inventor(s): Mannion et al

Case No: 5646

19. (Cancelled)

20. (Cancelled)

21. ⁵ (Previously Presented) The additive formulation of claim 1 wherein said particles comprise a D95 size of less than or equal to ~~about~~ 10 microns at a mean volume diameter (MVD) of about 7.5.

04-07-2005
22. ⁶ (Currently Amended) The additive formulation of claim ~~21~~ ⁵ wherein said anticaking agent and ~~small size~~ nucleating ~~or~~ compound are provided in a ratio of nucleating ~~or~~ compound to anticaking agent of about 80:20.

23. ¹¹ (Currently Amended) The additive formulation of claim ~~21~~ ²⁸ wherein said nucleating ~~or~~ compound and anticaking agent are provided in a ratio of nucleating ~~or~~ compound to anticaking agent of about 80:20.

BEST AVAILABLE COPY